What is claimed is:

1. An automatic hot food vending machine, comprising in combination:

hopper means for holding an inventory of uniformly-sized, individual refrigerated or frozen portions of said food and for maintaining said inventory in a refrigerated or frozen condition;

dispenser means for selectively dispensing one of said portions from said inventory by gravity;

oven means for receiving said one portion from said dispenser means, for heating said portion by irradiation thereof with microwave energy for a predetermined length of time, and for discharging said heated one portion from said apparatus thereafter by gravity;

changer means for receiving, counting, authenticating, and storing money inserted into said machine, and for refunding counterfeit money inserted therein or genuine money upon command; and

control and monitor means for:

receiving a signal from said changer means that a predetermined amount of said authenticated money has been inserted into said machine;

actuating said dispenser means upon receipt of said signal to dispense said one portion into said oven means; and

activating said oven means to receive, heat, and discharge said portion from said machine.

2. The machine of claim 1, wherein said dispenser means further comprise:

said hopper means including a lower, inverted frusto-pyramidal chamber having a flat bottom with a generally semicircular opening therethrough guarded by a

quadrant-shaped closure and defining an inwardly-flanged lip about said opening, said opening having a diameter at least twice a largest dimension of one of said portions;

an upright conical member having a largest diameter about equal to that of said semicircular opening, said member being positioned generally centered within said chamber above and spaced apart from said opening;

a cylindrical pan having a diameter coextensive with said opening, an open top in communicating engagement with said opening, a depth below said opening, and a generally flat bottom having a quadrant-shaped aperture therein in vertical alignment with said quadrant-shaped closure defining a dispenser opening;

a shaft rotatably-mounted coaxially within said semicircular opening and extending from above said opening, through said pan, to below said bottom of said pan;

a quartet of elongated rollers extending radially outward from said shaft in even distribution within a common plane normal to said shaft and rotatably journaled thereon for rolling movement of an outer portion of each said rollers upon an upper surface of said flanged lip above said semicircular opening;

a paddle wheel having four paddles, each said paddle extending radially outward from said shaft in alignment with one of said rollers and having a width and radial extent sufficient to sweep substantially all of a quartic volume defined within said pan between adjacent said paddles into alignment with said dispenser opening upon successive 90° incremental rotations of said shaft; and

means for selectively rotating said shaft through said successive 90° incremental rotations when actuated.

3. The machine of claim 2, wherein said dispenser

means further comprise:

means for detecting each said successive 90° incremental rotation of said shaft and for deactivating said dispenser means upon detection thereof.

4. The machine of claim 2, wherein said dispenser means further comprise:

means for detecting whether or not said portion of food has been dispensed from said dispenser means after one of said 90° incremental rotations, for advising said control and monitor means thereof, and for reactivating said dispenser means if not.

5. The machine of claim 4, further comprising:

means for detecting whether or not said portion of food has been dispensed from said dispenser means after a predetermined number of said successive 90° incremental rotations of said shaft, and for refunding an amount of said money from said changer means if not.

6. The machine of claim 5, further comprising:

means for notifying a remote location that said portion of said food has not been dispensed from said dispenser means after a predetermined number of said successive 90° incremental rotations of said shaft.

~~7. The machine of claim 1, wherein said oven means~~ further comprises:

an enclosure below said dispenser means, shielded against passage of microwave energy;

means for receiving said one portion into said shielded enclosure;

means for radiating microwave energy into said enclosure for a predetermined length of time to heat said one portion; and

~~means for discharging said heated one portion from~~

said enclosure and out of said apparatus by gravity.

8. The machine of claim 7, wherein said means for receiving said one portion into said enclosure further comprise:

said enclosure having at least one upward-facing opening therein and positioned below said dispenser means to receive said one portion;

a shielded door on said enclosure movable between closed and open positions; and

means for selectively opening and closing said door when activated.

9. The machine of claim 8, wherein said means for discharging said heated one portion from said enclosure and out of said apparatus further comprise:

said enclosure being mounted for tilting movement about a horizontal axis to a position wherein said enclosure opening faces generally downward to discharge said one portion from said enclosure by gravity;

means for selectively tilting said enclosure about said horizontal axis to said position; and

means for catching and conveying said heated one portion from said enclosure to an exterior opening in said machine.

10. The machine of claim 9, further comprising:

means for detecting whether or not said one heated portion has been discharged from said enclosure and for refunding an amount of said money from said changer means if not.

11. The machine of claim 10 further comprising:

means for notifying a remote location that said one heated portion has not been discharged from said enclosure.

12. The machine of claim 2, wherein said oven means further comprises:

an enclosure shielded against passage of microwave energy therefrom, said enclosure having a face with an opening therethrough, said opening being guarded by a shielded door hingeably-attached to said enclosure over said face for movement between opened and closed positions, said enclosure being rotatably-journaled about a horizontal axis for rotation between an upwardfacing position below said dispenser means opening, a horizontally-facing cooking position, and a downwardfacing discharge position;

means for opening said door and for rotating said enclosure to said upward-facing position to receive said one portion from said dispenser means;

means for rotating said enclosure to said horizontally-facing position and for closing said door;

means for radiating microwave energy into said closed enclosure for said predetermined length of time to heat said one portion;

means for opening said door and for rotating said enclosure to said downward-facing position to discharge said heated one portion therefrom by gravity; and

means for catching and conveying said one heated portion from said enclosure to an exterior opening in said machine by qravity.

13. The machine of claim 12, wherein: said dispenser means further comprises a chute adapted to catch and convey said one portion from said dispenser means opening to said enclosure opening; and

said means for catching and conveying said one heated portion from said enclosure to said exterior opening in said machine further comprises: a chute adapted therefor.

14. The machine of claim 12, further comprising:

means for detecting each said successive 90° incremental rotation of said shaft and for deactuating said dispenser means upon a detection thereof;

means for detecting whether or not said portion of said food has been dispensed from said dispenser means after one of said 90° incremental rotations of said shaft, for advising said control and monitor means thereof, and for reactuating said dispenser means if not;

means for detecting whether or not said portion of food has been dispensed from said dispenser means after a predetermined number of said successive 90° incremental rotations of said shaft and for refunding an amount of said money from said changer means if not; and

means for detecting whether or not said one heated portion has been discharged from said machine and for refunding an amount of said money from said changer means if not.

15. The machine of claim 14, further comprising:

means for notifying a remote location that said portion of said food has not been dispensed from said dispenser means after a predetermined number of said successive 90° incremental rotations of said shaft; and

means for notifying a remote location that said one heated portion has not been discharged from said machine.

~~16. The machine of claim 1, wherein said changer~~ means further comprises means for:

receiving a dollar bill into said machine;

comparing said bill electro-optically to an exemplar of predetermined authenticity and amount;

~~rejecting said bill from said apparatus if said~~

bill is not authentic or correct in amount;

stacking said bill within said apparatus and generated said signal to said control and monitor means if said bill is authentic and correct in amount;

holding a stock of ordered coin within said apparatus; and

ejecting a predetermined amount of said coin selectively from said apparatus upon command from said control and monitor means.

17. The machine of claim 16, further comprising:

means for monitoring the number of said bills and coin in said apparatus; and

means for notifying a remote location of said number and amount.

~~18. An automatic hot food vending machine,~~ comprising in combination:

hopper means for cold storage of an inventory of uniformly-sized, refrigerated or frozen portions of said food;

dispenser means for selectively dispensing one of said portions from said inventory;

oven means for receiving said one portion from said dispenser means, for heating said portion by irradiation thereof with microwave energy for a predetermined length of time, and for discharging said heated one portion from said apparatus thereafter;

changer means for receiving, counting, and storing money inserted into said machine; and

control and monitor means for:

receiving a signal from said changer means that a predetermined amount of said money has been inserted into said machine;

~~actuating said dispenser means~~

[redacted] ~~receipt of said signal [redacted] dispense~~ said one portion into said oven means; and

activating said oven means to receive, heat, and discharge ~~said~~ portion from said machine.